

Please make the following amendments.

IN THE CLAIMS

1. (previously amended) A screening method for identifying a compound which inhibits the binding between XRCC4 (XR-1 Cell Complementing 4) and DNA ligase IV, or XRCC4 and DNA-PK_{CS}/Ku (DNA-dependent Protein Kinase catalytic subunit/Ku) , or XRCC4, DNA ligase IV and DNA-PK_{CS}/Ku, the method comprising the steps of:

(i) contacting XRCC4 with a test compound and one or more components selected from the group consisting of DNA ligase IV and DNA-PK_{CS}/Ku; under conditions wherein, in the absence of said test compound being a compound which inhibits binding of XRCC4 to said one or more compounds, said XRCC4 binds to said one or more components; and

(ii) determining binding between said XRCC4 and said one or more components;

wherein reduction or abolition in binding between said XRCC4 and said one or more components is indicative that said test compound is a compound which inhibits binding between XRCC4 and DNA ligase IV, or XRCC4 and DNA-PK_{CS}/Ku or XRCC4, DNA ligase IV and DNA-PK_{CS}/Ku.

2. (canceled)

3. (previously amended) A screening method for identifying a compound which inhibits DNA ligase IV activity, the method including the steps of:

(i) contacting DNA ligase IV, XRCC4 and a test compound; and

(ii) determining DNA ligase activity in the presence and the absence of test compound X,

wherein a decrease in the activity in the presence relative to the absence of test compound is indicative that said test compound is a compound which inhibits the activity of DNA ligase IV.

4-5. (canceled)

6. (currently amended) A screening method for identifying a compound which inhibits the phosphorylation of XRCC4 by DNA-PK_{CS} comprising

(i) contacting a test compound, DNA-PK_{CS} and XRCC4; and

(ii) determining phosphorylation of said XRCC4 in the presence and the absence of the test compound;

a decrease in phosphorylation in the presence relative to the absence of the test compound being indicative that said test compound inhibits the phosphorylation of XRCC4 by DNA-PK_{CS}.

7-28 (canceled)